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State of Missouri
Division of Labor Standards
Pepartment of Labor and Industrial Relations



# 1987 Statistical Report INING

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**DOCUMENTS DIVISION** 

John Ashcroft Governor Jerry M. Hunter Director

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John Ashcroft Governor

# **Forward**

Missouri's minerals production, coal, lead, copper, iron and zinc showed some decreases for 1987. Clay, granite, shale and silica sand showed an increase for 1987.

It is our privilege to report, like 1986, that there were no fatalities in Missouri Mines as inspected by this Division in 1987.

Our Mine Safety Training Section trained 3,084 miners in 1987. We are still operating the program with two and one-half instructors. We are still active in Mine Rescue training also.

Missouri's mine safety records reflexes the on-going practice of good safety habits in the mining industry.

The Division of Labor Standards is happy to see the continuing cooperation among all the people involved in the safety & health training and awareness programs.

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# **Missouri Minerals Production**

Kind of Mines	Tons Produced	
	1986	1987
Clay	582,524	748,743
Coal	4,537,859	4,229,109
Copper	71,469	53,087
Granite (Felsite)	306,638	378,988
Iron	893,954	823,070
Lead	506,219	420,877
Shale	953,741	1,100,672
Silica Sand	622,848	765,144
Zinc	79,299	72,556

Concentrates: Lead-Zinc-Copper

**Iron-Pellets** 

# Clay

Clay production in Missouri for 1987 showed an increase of 166,219 tons compared to 1986.

#### **Leading Clay Producers In 1987**

Operators Tons Produ	
A.P. Green	172,244
Lowe's Southern Clay	160,190
River Cement Co	114,654
National Refractories, Inc.	74,968
Dillon Clay Mining Co	41,667
Arthur Dillon Clay Mining	40,151

# 1978-1987 Clay Production Record

Year	Tons	Produced
1978		1,235,744
1979		
1980		1,074,509
1981		836,959
1982		649,613
1983		659,192
1984		841,605
1985		727,682
1986		582,524
1987		748,743

#### Clay

Operators	# Employed	Tonnage
A.D. Willis & Son	0	23
Alsey Refractories Co.	4	22,338
A. P. Green	15	172,244
Arthur Dillon Clay Mining	2	40,151
Dillion Clay Mining Co.	6	41,667
Forest Johnson Clay Co.	5	15,993
Harbison-Walker Co.	5	33,118
Kasten Clay Products	3	19,461
Langenberg Mining Co.	2	19,944
Lowe's Southern Clay	105	160,190
National Refractories, Inc.	0	74,968
River Cement Co.	25	114,654
Southern Clay, Inc.	17	33,992

# Coal

Coal production for 1987 showed a decrease of 308,750 tons compared to 1986.

#### 1987 Leading Coal Producing Counties

Randolph	3,054,280
Barton	
Bates	259,993
Henry	213,128
Ralls	107,757

#### 1987 Three Leading Coal Producing Companies

Associated Electric Corp., Inc	2,262,869
N.E.M.O. Coal Co	791,411
P & M Coal Co. — Empire Mine	457,619

#### Counties With Most Men Employed in 1987

Randolph 43	9
Bates	1
Barton	9
Henry 7-	4

#### 1978-1987 Coal Production Record

Year	Tons	Produced
1978		5,843,073
1979		6,487,445
1980		5,502,523
1981		5,242,031
1982		5,778,223
1983		5,249,461
1984		6,810,336
1985		5,458,589
1986		4,537,859
1987		4,229,109

#### Coal

Operators	# Employed	Tonnage
Associated Electric Corp., Inc.	314	2,262,869
Am-Earth Corp.	18	20,510
Burbridge Coal Co.	25	107,757
*Caylor Construction Co.	10	30,387
Hi-Tech Mining Co.	11	24,746
Missouri Mining, Inc.	19	40,502
NEMO Coal Co.	125	791,411
Peabody Coal Co. — Power Min	ne 74	213,128
Pittsburg & Midway Coal Co	_	
Midway Mine	190	235,247
Pittsburg & Midway Coal Co	_	
Empire Mine	76	457,619
SunPyre Mining, Inc.	3	8,676
Universal Coal & Energy Co.	15	36,257
*(Formerly Central West Co	al Co.)	

# **Coal Production By County**

County	Tons Produced	Fatal Accidents
Bates	259,993	0
Barton	466,295	0
Henry	213,128	0
Howard	36,257	0
Putnam	40,502	0
Ralls	107,757	0
Randolph	3,054,280	0
Vernon	50,897	0

# Iron

The 1987 production of Iron showed a decrease of 70,875 tons compared to 1986.

#### 1978-1987 Iron Production Record

Year	Tons	Produced
1978		717,769
1979		1,188,634
1980		1,439,300
1981		1,100,000
1982		807,094
1983		877,033
1984		1,506,237
1985		1,214,352
1986		893,945
1987		823,070

#### Iron

Operator	# Employed	Tonnage
Pea Ridge Iron Ore Co.	182	823,070

# Lead

Lead production in Missouri for 1987 showed a decrease of 85,342 tons compared to 1986. Zinc showed a decrease of 6,743 tons and Copper showed a decrease of 18,382 tons compared to 1986.

1978-1987 Lead, Zinc and Copper Production Record

Year	Tons Lead Produced	Tons Zinc Produced	Tons Copper Produced
1978	716,126	130,537	23,999
1979	719,553	130,323	31,386
1980	752,060	129,683	26,142
1981	555,776	98,269	15,384
1982	680,310	126,473	11,578
1983	638,474	122,143	13,542
1984	433,929	93,397	9,264
1985	539,459	102,006	38,910
1986	506,219	79,299	71,469
1987	420,877	72,556	53,087

#### Lead, Zinc and Copper

Operators	Tons Lead Produced	Tons Zinc Produced	Tons Copper Produced	# Men Employed
*Cominco Metals, Inc.	99,018	21,623	6,307	137
**The Doe Run Co.	282,882	40,658	46,780	276
Asarco, Inc.	38,977	10,275		

<sup>\*(</sup>Formerly Cominco American, Inc.)

<sup>\*\*(</sup>Formerly St. Joe Minerals)

# **Shale**

The 1987 production of Shale showed an increase of 146,931 tons compared to 1986.

#### 1978-1987 Shale Production Record

Year	Tons	Produced
1978		1,290,386
1979		1,353,088
1980		1,144,436
1981		958,652
1982		704,442
1983		825,670
1984		864,916
1985		960,435
1986		953,741
1987		1,100,672

#### **Shale**

Operators	# Employed	Tonnage
Buildex, Inc.	24	139,113
Ceramo Co.	3	7,356
Continental Cement Co.	3	149,063
Dundee Cement Co.	33	719,532
Midland Brick & Tile Co.	3	85,608

# Silica Sand

The 1987 production of Silica Sand showed an increase of 142,296 tons compared to 1986.

#### 1978-1987 Silica Sand Production Record

Year	Tons	Produced
1978		1,168,894
1979		1,175,214
1980		1,072,951
1981		1,130,395
1982		764,283
1983		713,491
1984		692,544
1985		633,202
1986		622,848
1987		765,144

#### Silica Sand

Operators	# Employed	Tonnage
Master Bros. Silica Sand	7	49,804
*U.S. Silica Co.	40	227,980
River Cement Co.	6	150,804
Unimin Corp.	19	336,556
*(Formerly Pennsylvania	Glass Sand Co.)	•

# **Granite**

Operators	# Employed	Tonnage
G.A.F. Chemicals Corp.	103	378,036
Missouri Red Quarries, Inc.	12	169
St. Francois Red Quarries	4	783

# Fatal Accidents in Missouri Mines in 1987

No fatal accidents in Missouri Mines as inspected by the Division of Labor Standards in 1987.

# **Mine Fatalities In Missouri**

Year	Lead and Zinc Mines	Coal Mines	Other Mines	Total
1900	52	19	<u> </u>	71
1901	41	15	-	56
1902	14	10	-	24
1903	13	17	-	30
1904	30	11	-	41
1905	49	11	-	60
1906	58	16	_	74
1907	42	8	3	53
1908	46	10	-	56
1909	65	21	-	86
1910	45	16	-	61
1911	33	8	3	44
1912	28	19	2	49
1913	28	9	4	41
1914	22	19	2	43
1915	41	17	2	60
1916	35	6	2 2	43
1917	48	14	-	62
1918	16	22	1	39
1919	11	10	1	22
1920	No Report	_	-	_
1921	10	12	-	22
1922	10	6	-	16
1923	9	20	-	29
1924	12	6	-	18
1925	6	11	_	17
1926	11	7	-	18
1927	5	9	1	15
1928	8	11	2	21
1929	2	7	-	9
1930	3	10	3	16
1931	1	6	2	9
1932	2	7	1	10
1933	-	19	2	21
1934	1	13	-	14
1935		9	-	11
1936	3	16	1	20
1937	2 3 2 5 6	14		18
1938	5	7	2 2	14
1939	6	1	-	7
1940	3	7	-	10
1941	4	8	2 2	14
1942	6	-	2	8

	Lead and	Coal	Other	
Year	Zinc Mines	Mines	Mines	Total
1943	4	7	2	13
1944	6	4	$\bar{2}$	12
1945	6	5	2 2	13
1946	ĺ	5 3	$\frac{\overline{2}}{2}$	6
1947	7	3	<del>-</del> 6	16
1948	2	1	4	7
1949	5	$\hat{2}$	5	12
1950	5 2 2 3 2	$\overline{1}$	4	7
1951	$\bar{2}$	2	5	9
1952	3	3	4	10
1953	2	-	<u>.</u>	
1954	-	1	1	$\bar{2}$
1955	1	- -	2	3
1956	1	_	1	2 2 3 2 7
1957	3	1	3	7
1958	2	i	3	6
1959	4	-	_	4
1960	· -	_	_	Ö
1961	6	1	_	7
1962	-	-	_	Ó
1963	_	_	_	ŏ
1964	3	_	_	
1965	3 2	-	<u>-</u>	3 2 4
1966	1	1	2	4
1967	2	-	-	2
1968	3	-	1	4
1969	2	_	-	2
1970	2 3 3 2 2 2	1	_	4
1971	3	i	_	4
1972	2	î	1	4
1973	2	_	4	6
1974	2	_	3	5
1975	-	2	2	4
1976	1	-	-	1
1977	1	_	_	1
1978	-	-	2	2
1979	1	_	-	1
1980	-	-	_	0
1981	1	_	_	
1982	2	_	_	1 2 3 0 2 0
1983	2 2	1	-	3
1984	0	0	-	<u>5</u>
1985	2	0	-	2
1986	0	0	-	0
1987	0	0	-	0
Total	1,000	512	101	1,547
10001	1,000	J12	101	1,547

# **Caves**

An act of the 63rd General Assembly authorized and directed inspection of all Caves held open to the public and to require every Cave owner, operator or agent to provide necessary safety guard rails, bridges, ladders, entrances, platforms, walkways, safety barriers, rails, paths and other safety measures in and around any such Cave before it may be opened to the public and to file a complete and true map plan of such cave.

It shall be the duty of the Inspection Section to inspect such Caves at least once a year. The annual inspection fee will be thirty-five dollars (\$35).

County	Name of Cave	Address
Barry	Crystal Caverns	Cassville, MO
Boone	Boone Cave	Columbia, MO
Camden	Bridal Cave	Camdenton, MO
Camden	Ozark Caverns	Osage Beach, MO
Carter	Cave Spring Onyx Caverns	Van Buren, MO
Crawford	Cathederal Cave	Leasburg, MO
Crawford	Onondaga Cave	Leasburg, MO
Franklin	Fisher's Cave	Sullivan, MO
Franklin	Meramec Caverns	Stanton, MO
Greene	Crystal Cave	Springfield, MO
Greene	Fantastic Caverns	Springfield, MO
McDonald	Ozark Wonder Cave	Noel, MO
McDonald	Bluff Dwellers Cave	Noel, MO
McDonald	Truitt's Cave	Lanagan, MO
Marion	Cameron Cave	Hannibal, MO
Marion	Mark Twain Cave	Hannibal, MO
Miller	Indian Burial Cave	Osage Beach, MO
Miller	Fantasy World Cavern	Osage Beach, MO
Morgan	Jacob's Cave	Versailles, MO
St. Francois	Bonne Terre Cave	Bonne Terre, MO
Shannon	Devil's Well	Van Buren, MO
Shannon	Round Springs	Round Springs, MO
Stone	Talking Rock Cave	Silver Dollar City, MO
Stone	Marvel Cave	Silver Dollar City, MO
Wayne	Rebel Cave	Silva, MO